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ABSTRACT

The author argues that despite the conventional wisdom that schools cannot overcome the effects of socioeconomic status and race on academic achievement, there is a growing body of literature indicating that school climate and students' sense of control of their environment are strongly correlated with achievement. Five school-specific strategies have been suggested for changing the school climate by concentrating on the students' sense of futility: (1) use of academic team games; (2) effective reinforcement techniques; (3) improved test taking skills; (4) confronting low academic performance by convincing the student to take personal responsibility for achievement outcomes; and (5) confronting racism by focusing on individual responsibility for success. The author uses attribution theory as a framework to identify the underlying commonalities of these five strategies and integrate them into a theoretical framework. He suggests that motivation is a highly alterable, situation-specific learning variable, and that an understanding of the problem of achievement and motivation requires analysis at both the level of social system and at the individual level. (Author/MK)

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RAISING LOW-INCOME/MINORITY ACHIEVEMENT BY REDUCING STUDENT SENSE OF ACADEMIC FUTILITY: THE UNDERLYING THEORETICAL COMMONALITIES OF SUGGESTED STRATEGIES

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Research Background

Despite the conventional wisdom that schools cannot overcome the effects of socio-economic status (SES) and race on school achievement as documented by the Coleman Report (Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld, & York, 1966) or for adult income and status (Jencks, Smith, Acland, Bane, Cohen, Gintis, Heyns, & Michelson, 1972), there is a substantial and growing literature that schools can make a difference. Studies of atypical, successful low income and/or minority schools (e.g., Brookover & Schneider, 1975; Brookover & Lezotte, 1977; Hoover, 1978; Lezotte & Passalacqua, 1978; Weber, 1971) have established that these schools do exist and have described their distinguishing characteristics. Several large scale correlational studies on school effectiveness have focused on variables which differentiate high from low achieving schools. Two findings from these studies explain a considerable portion of the achievement variance between schools.

First, the concept of school or classroom climate, defined broadly as the complex of attitudes, beliefs, interactions, and normative practices that encompass the students and staff, has been strongly correlated with achievement

(e.g., Anderson, 1970; Brookover, Beady, Flood, Schweitzer, & Wisenbaker, 1979; Chen & Fresko, 1978; Coleman et al., 1966; Madaus, Kellaghan, Rakow, & King, 1979; Glasheen, Hadley, & Schneider, 1977; McDill & Rigsby, 1973; Rutter, Maughan, Mortimore, Ouston, & Smith, 1979). Second, an attitudinal construct characteristic of the students, their sense of control of the environment, was highly related to achievement in two of these studies (Chen & Fresko, 1978; Glasheen et al., 1977) and in two other studies was the single variable most strongly correlated to achievement (Brookover et al., 1979; Coleman et al., 1966). Taken together these findings suggest that the social-psychological school learning climate is predictive of outliers on the regression curve, those few high achieving low SES/minority schools and low achieving high SES/white schools. Further, these findings suggest that sense of control (Coleman et al., 1966) or the related construct in the Brookover et al. (1979) study, Student Sense of Academic Futility, represent an extremely important aspect of the overall concept of climate.

The research cited above was conducted in field studies of naturally occurring successful schools. The logical question guiding much of this research was what factors in these schools can account for their unexpected high achievement. This strategy, based on the identification of those factors and subsequent transfer of those practices to low achieving schools, assumes the optimistic viewpoint that

achievement levels in all schools can be raised. Brookover and associates, the senior author included, have been involved in an intervention project in a heavily industrial city in Michigan to raise achievement in the low income, urban schools by improving the school learning climate. Tornatzky, Brookover, Hathaway, Miller, and Passalacqua (in press) have addressed the problems encountered in organizational change and implementation.

In another direction Miller (in press) has focused on Student Sense of Academic Futility as the most potent of the predictive variables in the Brookover et al. (1979) research and has suggested five strategies for changing the school climate by concentrating on the students' sense of futility. The current paper builds on this background by identifying the underlying commonalities of those five strategies and integrating them into a theoretical framework. Thus this paper is primarily analytical. The literature related to Student Sense of Academic Futility, the symbolic interactionist emphasis on perceived expectations and evaluations of self, other, and reference group (Mead, 1934) employed in the Brookover et al. (1979) conception of school climate, and the formulations of Weiner (1972, 1979) on motivation using attribution theory (Heider, 1958; Kelley, 1967) will be combined into a framework which accommodates the five strategies.

Theoretical Perspectives

Student Sense of Academic Futility can be described as a sense of hopelessness on the part of the student. The student perceives that nothing one does makes any difference; the system is controlled by powerful others. Racism, system bias, and peer pressures combine to reward efforts to achieve in academic areas with failure or disapproval. This variable, which reflects the student's sense of the possibility of successful endeavor in school due to societal factors and the school specific perceptions of teacher and peer expectations and approval, accounts for an R^2 of .59 explained variance in achievement in the statewide sample of the Brookover et al. (1979) study.

It is the authors' contention that this sense of futility is reflective of the degree of motivation in the students in a school. Certainly teachers have long complained, especially those in low income and minority schools, that their students are just not motivated. Reducing the feelings of futility or hopelessness should result in an increased level of motivation since the student will have increased feelings that one's efforts will have an effect on one's environment. If the student's efforts are then seen as having an effect (when previously they were perceived to have little or no effect), it is logical that the student will try harder (be more highly motivated). The five strategies -- use of academic team games, effective

reinforcement techniques, improved test-taking skills and techniques, confronting students' low academic performance, and confronting racism (Miller, in press) -- are all designed to reduce futility and increase motivation by changing the student's perception of success. The students are encouraged to credit success and failure to their own efforts and to perceive a connection between school success and later adult life.

Despite the variability of the suggested strategies, we believe they act in a similar manner with respect to changing motivation. In order to show that underlying similarity, and before constructing a framework to encompass the strategies, it is necessary to review the three strands of research noted above.

Antecedents of the Futility Variable

The variable Student Sense of Academic Futility is closely related to the sense of control variable used in the Coleman Report (1966). But as noted above, the Brookover variable is school-academic specific and taps the student's sense of futility toward school success, including peer approval and teacher facilitation of learning. Sense of control on the other hand is a more global construct which measures the degree to which a student believes that a person has control over the things which he/she does versus the feeling that events are controlled by events outside

one's control such as luck, fate, or powerful others. The sense of control variable in turn is related to the concept of internal/external locus of control of reinforcement. That construct, originally developed out of social learning theory (Rotter, 1954), has been defined as follows:

> When a reinforcement is perceived by the subject as following some action of his own but not being entirely contingent upon his action, then, in our culture, it is typically perceived as the result of luck, chance, fate, as under the control of powerful others, or as unpredictable because of the great complexity of the forces surrounding him. When the event is interpreted in this way by an individual, we have labeled this a belief in external control. If the person perceives that the event is contingent upon his own behavior or his own relatively permanent characteristics, we have termed this a belief in internal control (Rotter, 1966, p. 1).

This is not the place for a review of the literature of this concept. Several reviews and conceptual analyses of the internal/external control construct already exist (e.g., Lefcourt, 1966; Rotter, 1966, 1975). But for our purpose we do need to note both some of the conceptual problems of this more general concept when applied to school achievement and the extensiveness of the concept in its application to school related behavior.

First, the original locus of control scale was developed for adults. Several modifications of the original scale have resulted in suitable versions for children of school age. These reported studies have all indicated the

correlation between scoring as an internal and higher achievement (e.g., Battle & Rotter, 1963; Brookover et al., 1979; Coleman et al., 1966; Crandall, Katkovsky, & Crandall, 1965; Nowicki & Strickland, 1973).

Another problem with the original construct pertains to its global nature. As originally formulated, the locus of control is a general formulation of personality that applies to a wide range of activities. But as the concept relates to many situations generally, it gives up specifity and predictive power. Accordingly the Brookover et al. (1979) and Crandall et al. (1965) formulations are school-achievement specific.

A third problem with the construct is that of dimensionality. Research is showing that locus of control is multi-dimensional and that the different dimensions correlate with different types of behavior. Levenson (1973) has separated luck or chance from system bias, which is perceived as consistent but negative in its effects. Gurin, Gurin, Lao, and Beattie (1969) have identified several dimensions including chance versus system bias, a personal level dimension and a more general ideological level, and a racial discrimination dimension. Lao's (1970) study supports the Gurin et al. finding that in some instances, e.g., collective social actions or blacks entering traditionally closed occupations, being an internal is not necessarily better. Gurin et al. and Lao suggest this may be in part due to the accurate perception of low

income/blacks that the system indeed is not fair. This can lead the externals to corrective social action rather than accepting internal blame at the ideological level for the lower status of blacks in general.

Related to this finding of more collective social action by externals on the ideological dimension is the question of "good" versus "bad." Rotter (1975) indicates that the value judgment of equating good with internal control and bad with external control has sometimes hindered more complete understanding of the factors operating in various situations. This good versus bad interpretation can be seen as influencing a study by DuCette and Wolk (1972), that also relates to the further question of the stability of internal/external locus of control as a personality construct. Gurin et al. (1969) and Lao (1970) are in effect arguing for a situation specific response to internal/external control experiences. Rather than positing a stable personality construct which reacts similarly across situations, they are proposing that in some instances a person responds on one dimension and at other times perhaps on a different dimension. Thus a person could respond to a personal problem as an internal and subsequently respond to a general ideological problem as an external. In the DuCette and Wolk (1972) study, it is found that students who score internal in an inner city black high school respond differently to a set of problems and situations than internal students in a white suburban high school. Rejecting the

multi-dimensional interpretation of Gurin et al. and Lao, DuCette and Wolk interpret these findings as indicative of a genotypic/phenotypic response in which the internals (genotype) in both schools are giving the "best" response for their specific situation (phenotype). Thus DuCette and Wolk argue that for the internal black to have low aspirations is best because this is a realistic response to reality while the high aspirations of the white suburban students is also best because they are more apt to be motivated to achieve an attainable goal. This interpretation also supports their contention that locus of control is a stable personality construct.

But the Gurin et al. and Lao interpretation seems to us more viable for two reasons. First, the work of Endler (Note 1), Endler and Magnusson (1976) on interactionist personality argues for a person by situation interpretation of personality constructs rather than a stable personality construct across situations. That interpretation would be consistent with the Brookover and Schneider (1975) study of schools matched on demographic variables which had different achievement levels. In that study the variability in achievement was highly related to the climate variables and Student Sense of Academic Futility alone accounted for 45 percent of the R^2 explained variance. Thus, it is obvious that students from similar family and racial backgrounds do not always have consistent levels of futility (internal/external locus of control in more general terms), probably

due to varying local norms of perceived appropriate behavior and belief. Second, the DuCette and Wolk (1972) interpretation seems to us to be consistent with the dismal conventional wisdom that schools cannot effect the outcome of achievement and adult success ala Coleman et al. (1966) and Jencks et al. (1972). While we admit that for most low SES/minority schools, that is true, the studies cited above are evidence that these schools can be successful. The Gurin et al. (1969), Lao (1970) interpretation, on the other hand, presents evidence that action to counter system-bias is possible and more likely by externals in some circumstances.

Despite the numerous conceptual problems suggested above, the general concept of internal/external locus of control of reinforcement, with the various modifications noted, has produced impressive empirical evidence that it is a major factor in achievement related school behavior. Even more impressive is the continuous reappearance of a similar concept even when it is not identified with the internal/external locus of control literature. For example, Hollingshead (1949) in his classic Elmtown's Youth describes class V (the lowest class) as passive and fatalistic persons who realize and believe that they can do nothing to improve their position. Further, they are resigned, frustrated, and defeated. This is obviously describing people who have no sense of control over their environment.

Likewise, the Youth in the Ghetto study by Harlem Youth

Opportunities Unlimited, Inc. (1964) speaks of the state of hopelessness, despair, apathy, powerlessness, and defeatism that life in the ghetto brings to many of its young people. Another descriptive study, Glasser's (1969) Schools Without Failure, relates the lack of hope of teenagers in a school for delinquent girls. These youth are resigned to school failure and an unhappy and unsuccessful life, and they feel there is nothing they can do to change things. In yet another study of class and values Kohn (1969) notes:

> The essence of higher class position is the belief that one's decisions and actions can be consequential; the essence of lower class position is the belief that one is at the mercy of forces and people beyond one's control, often, beyond one's understanding (p. 198).

Anthropological-ethnographic descriptions also provide evidence of the relation between school failure and a sense of futility or external control. In a study of an inner city elementary school in Harlem, Rosenfeld (1976) notes that poor children need help to achieve. Pinpointing the connection to motivation Rosenfeld states, "If you are going to fail, you may as well not try hard to succeed (p. 232)." Closely related to these descriptions of hopelessness and perceptions of failure is a study by Efthim, Kazan, and Slawski (Note 2) that showed that sense of control (using the Coleman et al., 1966 scale) was far higher for students who remained in school than for those who later dropped out for both blacks and whites.

The series of studies cited above not only demonstrate the extensive use of a concept similar to locus of control or sense of futility but also demonstrate its relation to demographic variables such as race, SES, and family characteristics such as size or ordinal birth position. Other studies further demonstrate the relation of locus of control to both demographic factors and school or achievement related behaviors. Crandall, Katkovsky, and Crandall (1962), using the Intellectual Achievement Responsibility scale (IAR) which has both an I+ score for acceptance of responsibility for success and an I- score for responsibility for failure, found sex differences among young children such that girls apparently reflected a wishful or fantasy oriented motive-ability relation while boys reflected a realistic orientation to their motives and abilities. McGhee and Crandall (1968) also found sex differences and evidence of an increase in the strength of the achievement-IAR correlation with age. Bartel et al. (1970) likewise found a strong SES effect along with an age effect. Bartel et al. interpret the age and SES findings as consistent with the learned, socializing effects of the social control function of schools, directed specifically at lower class children. This social control hypothesis for age and SES is consistent with the cultural stereotyping of sex role differences that Crandall et al. (1962) advance for the sex differences they found in their study.

One further conceptualization should be noted. The

Origin-Pawn distinction of de Charms (1968) is closely related to the internal/external control concept. But whereas locus of control refers to the consequences of reinforcements for motivating effects as in reinforcement theory, the Origin is an action oriented person who actively takes control of his/her life while the Pawn (as in the weakest piece in the game of chess) is pushed around by others. Further, the Origin-Pawn concept comes directly from motivation theory. This distinction has also been shown to be related to achievement (de Charms, 1972).

We have reviewed the antecedents of the sense of futility variable in which we stressed, among other factors, the extensive empirical evidence relating the concept to achievement, the relation to demographic factors, the situational and multi-dimensional aspects of the construct as related to variations in perceptions of local norms, numerous researchers' modifications of the original internal/external locus of control dimension, and the possibility of a learned, socializing effect due to cultural stereotyping and social control in the school that could account for some of the differences in locus of control between persons and demographic groups.

We will now relate Student Sense of Academic Futility to the concept of school learning climate in terms of the perceived self-other formulations of symbolic interactionism.

A Symbolic Interactionist Framework

Brookover and Erickson (1975) define school academic climate as follows:

> The school social climate encompasses a composite of variables as defined and perceived by the members of this group. These factors may be broadly conceived as the norms of the social system and expectations held for various members as perceived by the members of the group and communicated to members of the group (p. 364).

This definition of the school learning climate is consistent with the symbolic interactionist position that people act on their perceptions of reality. These perceptions are the basis of the meanings that one's interactions with persons and things take on for each individual. Thus a person's perceptions of the expectations and evaluations that are communicated to him/herself by various significant others or reference groups become the centerpoint for the person's definition of self. As this process of interaction proceeds, group based rewards and sanctions contribute to the learning of appropriate behavior.

Just as members of society learn to act in accord with accepted definitions of behavior in the larger culture, so too the members of the social system representing the school learn the appropriate norms of behavior for a particular school as defined by the members of that social system and as carried in the specific group norms, sets of expections,

beliefs about proper behavior, evaluations of ability and probabilities of success, and role definitions of appropriate standards of conduct. In short, students soon learn what is expected of them and act accordingly. Of course the expectations of the larger society and community are reflected in the local norms of a school, but these wider influences will be refracted somewhat differently by the unique properties of each separate social system and its members. Thus the variability in the school learning climate from school to school derives from the variation in the norms, role definitions, interactions, expectations, and evaluations that become proper for the members of each separate school.

This conception of the learning climate of the school is captured in the interrelations of the student and teacher variables. The importance of expectations for and evaluations of students by teachers can be seen in a double link to achievement. The Brookover et al. (1979) data indicate that teacher expectations and evaluations have a direct link to achievement. Previously we noted that the correlation between Student Sense of Academic Futility and achievement is the strongest of all the climate variables. But when futility is used as a dependent variable, the teacher variables account for about 35 percent of the R^2 explained variance in the black and white state samples with SES and percent white accounting for about 10 percent additional variance. Thus the students' perceptions of teachers'

expectations and evaluations are reflected in the Sense of Student Academic Futility which completes the indirect link between teacher expectations and evaluations and achievement.

The above analysis explains the relation between the different scales in the set of climate variables and accounts for perceptions of local norms, role definitions, and self-other expectations and interactions. But the symbolic interactionist explanation is based primarily on interpersonal interaction. The intraperson explanation of the motivating factors involved in interaction with one's environment has been more fully addressed by the theoretical constructions of attribution theory. We turn to that perspective in the next section.

An Attributional Analysis of Motivation

In describing attribution theory Kelley (1967, p. 193) notes that, "Attribution theory concerns the processes by which an individual interprets events as being caused by a particular part of a relatively stable environment." Weiner (1972) adds that:

> The perception of causality is an ascription imposed by the perceiver; causes per se are not directly observable. You can only infer, for example, that an individual stepped on your toe because "he is aggressive" or because "it was an accident" (p. 310).

We can summarize attribution theory by indicating that behavior is guided by information processing in which the organism searches for and responds to dispositional causes or reasons which explain various stimuli and situational conditions that are experienced. In other words, the individual cognitively "attributes" explanations of both consistent and inconsistent environmental events to causal constructions.

Weiner (1972) has reformulated Atkinson's (1957) achievement motivation theory in terms of attribution theory. Weiner, based on Heider's (1958) writing, suggests that persons attribute events to either internal or external causes. But following Kelley (1967) Weiner states that persons also base their attributions of causality on the degree of stability. Accordingly, Weiner formulates the following scheme for the determination of achievement behavior.

	Locus of Control	
Stability	Internal	External
Stable	Ability	Task Difficulty
Unstable	Effort	Luck

Figure 1. Weiner's Classification Scheme for the Perceived Determinants of Achievement Behavior.

Weiner admits that there are theoretical difficulties with this type of classification scheme such that we are unable to account for changes in ability, that some persons

may consider their luck as a stable factor, or that task difficulty may be dependent on the evaluations of reference groups.

Despite these problems Weiner (1972) reviews a considerable number of studies that support his conceptualization. Using the concept of needs achievement, considered to be a personality construct in its own right and taken from Atkinson's (1957) achievement motivation theory, Weiner summarizes the difference in attributional patterns for individuals high and low in achievement needs:

> Individuals high in achievement needs, relative to those low in achievement needs, attribute success to ability and effort, and failure to a lack of effort. Individuals low in achievement needs, relative to those with high achievement motivation, ascribe failure to a lack of ability, and in general perceive themselves as low in ability (p. 373).

It is obvious that Weiner (1972) sees needs achievement as an antecedant to his two-dimensional classification scheme.

Although Weiner (1972) presents considerable supportive data, we have problems with the above classification format. Our principal objection is that this classification does not explain the relation between academic self-concept and sense of control. Several major studies have found that low income students, especially blacks, in schools with <u>low</u> achievement typically have <u>high</u> academic self-concept. But at the same time the sense of control of these students is low (external). This was first reported in the Coleman

Report (1966) and supported in a replication study by St. John (1971). A further study by Epps (1969) using a conformity scale tapping a dimension similar to an external sense of control also found that lower achieving minority students with a conforming (external) perspective had a higher self-concept. This relationship was also a primary finding in the Brookover et al. (1979) study using Student Sense of Academic Futility rather than sense of control. Very simply, students with a strong sense of futility or hopelessness appear to attribute their low achievement not to poor ability as Weiner (1972) contends, but to the pervasive effects of systematic bias in the school and the larger society.

Weiner (1979) has recognized many theoretical problems with the earlier classification and has attempted to correct those problems by positing a three dimensional, eight-celled classification scheme. In this conception Weiner (1979) separates locus of causality (internal or external) from controllability. This conception at least recognizes that luck and the orientation of powerful or significant others are not equivalent. However, Weiner (1979) admits that this new classification scheme also has theoretical difficulties.

Our position is that Weiner's (1979) formulation of a three dimensional classification scheme -- locus of causality, stability, and controllability -- still does not adequately address the relation between self-concept and sense of

control (Coleman et al., 1966) or Student Sense of Academic Futility (Brookover et al., 1979). This appears related to an inadequate conceptualization of the influence of reference groups and the variability of local norms, a problem pointed out by Weiner (1972) himself. The neglect of local norms also is reflected in the classification of task difficulty as a stable element rather than as unstable.

We also feel that the disposition of needs achievement as an antecedent personality variable which mediates attributions based on high or low individual needs achievement is an inadequate conception of motivation. Rather, achievement motivation is situation specific. A good example is the very obvious difference in achievement motivation for many inner city black youth for sports and academic endeavors. That motivation is a situation specific personality variable is consistent with the position noted earlier that personality traits reflect the interaction of the person with the environment (Endler, Note 1; Endler & Magnusson, 1976). From an attributional standpoint, this position is also consistent with the contention of Jones and Nisbett (1971) that the strong tendency in psychology to look for personality traits is an attributional error based on the incorrect observation that the behavior of others is consistent across situations. A classic refutation of this tendency is Pettigrew's (1956) study of prejudice in which levels of authoritarian personality, frequently offered as an explanation of prejudice, were equal in the North and

South yet prejudice was greater in the South.

Based on these criteria, we believe that Weiner's (1972, 1979) conceptual framework must be revised. We offer a tentative model below. However, a more complete analysis of the theoretical implications of Weiner's models and our own must be addressed at another time.

A Revised Attributional Model

Weiner (1972, 1979) suggests that motivation results from attributions to perceived causes of success and failure. These causal attributions determine the affective response (shame, pride, dejection, elation, etc.) and the expectancy of future success or failure. The combination of affective response and expectancy in turn are the primary influence on maintaining or changing motivational levels.

A second component of Weiner's attributional analysis involves the motivational component that an individual brings to a task. Following Atkinson (1957), Weiner (1972) suggests that a person's level of need achievement is an antecedent motivational factor. Earlier, we suggested that this antecedent level of motivation is instead determined by a person's valuation of or interest in the task at hand and the specific situation. An individual highly motivated to play tennis may be completely uninterested in piano or vice-versa. Similarly, the specific situation affects the pre-task motivation. Even the best of teachers will have

difficulty attaining high interest in academic work on the last day of school.

We believe that Weiner's attributional approach to explaining motivation is basically sound. But the shortcomings noted above require some revisions. The situation specific antecedent needs achievement is one problem. But our basic objection to Weiner's (1972, 1979) models is that they do not take account of perceived system bias, which for many low SES/minority students is an uncontrollable but consistent force acting to deny their chances of success (see Gurin et al., 1969). Thus low achievement is attributed to the system rather than personal competence. Furthermore the analyses of Coleman et al. (1966) and St. John (1971) strongly support the notion that the level of academic competition in a school (task difficulty) is controlled by local school norms.

Accordingly, we hypothesize that in most school related behavior an attributional model, with the dimensions of controllability and stability, is applicable. We recognize that other dimensions are possible and that at times attributions are made to other dimensions. That problem must be resolved in terms of salience hierarchies. The specific dimensions and causes to which persons attribute success and failure depend on the salience of those dimensions to the situation at hand. We recognize that dimensions shift with changes in salience. However, given the nature of school related tasks, we suspect that this model

will apply in most cases, i.e., the situation of school is similar from day to day. Thus our model takes the following form:

	Stability	
Controllability	Stable	Unstable
Controllable	Personal competence	Effort
Uncontrollable	Environmental cues	Task difficulty

Figure 2. Revised Attributional Model for the Perceived Determinants of School Related Achievement Behavior.

Given this attributional framework and a revised model of the perceived causal determinants of success and failure, we can now explain the underlying commonalities of the five strategies to improve achievement by reducing Student Sense of Academic Futility. The strategies have the common effects of changing the student's motivational level. We suggest that motivation is a highly alterable variable. This is in contrast to the frequent attributional characterizations of many teachers that a particular student is hard working, lazy, or shiftless. Motivation as a highly alterable variable is also in contrast to the conception of needs achievement as a more stable personality construct. In this respect, we are adding to Bloom's (1980) listing of several pairs of alterable versus stable variables in the teaching-learning process, e.g., cognitive entry characteristics vs. intelligence and time-on-task vs. available time. We agree

with Bloom that increasing the level of the alterable variable will result in higher achievement.

We now offer an attributional account of each of the five strategies.

Use of Academic Team Games

Low SES and minority students have traditionally been highly motivated by team sports. The team sports model includes several general features which are related to learning. Team members work together (a peer tutoring situation). Practice time, often unpleasant and demanding (similarity to drill and homework), is more intense and often longer because of the motivation of the game or contest between teams. The reference group looks up to those individuals who do well in a sport.

With this general description, we can list several factors that lead to changes in the attributional pattern of students due to participation in academic team sports.

1. By transposing a high motivational framework, the team sports model, to the classroom, we are changing the pre-task motivational level toward an academic setting often associated with little interest in low SES schools.

2. The external trappings of the contest (winning, prizes, admiration from peers) place a premium on high academic performance. Individuals who do well become important to the team. This results in a change in reference

group standards and role models which in turn increases pre-task interest and motivation.

3. Increased practice time and intensity result from the high pre-task motivation. These in turn increase the probability of success which is reflected in attributions of success as due to competence and effort (change in expectancy).

4. Increased success due to peer tutoring and more practice, rewards from competition, and team affiliations can lead to increased pride in school work which in turn increases future interest in task motivation and hope of success (change in affect).

Effective Reinforcement Practices

In order for teacher praise to be effective reinforcement behavior, it must meet several criteria (Brophy, Note 3).

> 1. contingency: The praise must be contingent upon performance of the behavior to be reinforced.
>
> 2. specificity: The praise should specify the particulars of the behavior being reinforced.
>
> 3. sincerity/variety/credibility: The praise should sound sincere. Among other things, this will mean that the content will be varied according to the situation and the preferences of the student being praised (p. 9).

One of the most common problems in low income schools is that children are praised for incorrect answers. Furthermore

much of the praise given by teachers does not conform to the above requirements. Empirical evidence (Brophy, Note 3) of reinforcement as a motivator suggests that ineffective praise can be counterproductive. We suggest an attributional explanation of these findings below. For a more thorough treatment of this topic see Brophy (Note 3), Dweck, Davidson, Nelson, and Enna (1978), and Weiner (1972, 1979).

1. Students who are praised for specific accomplishments are likely to attribute the praise to their own competence or effort. On the other hand, indiscriminate praise is likely to be attributed to factors outside their control such as teacher behavior (environmental cues) or the level of difficulty of the task. The attributions of effort or competence result in increased expectancy of future success and increased pride which in turn lead to higher motivation. Attributions to uncontrollable factors do not increase expectancy or affect and can even be detrimental to motivation. For example, the student who attributes praise to an easy task may reason that the teacher thinks the student is not capable of receiving praise for more difficult work.

2. The ambivalent distinction between correct and incorrect answers and the reinforcement of students for incorrect answers (Brookover et al., 1979; Brophy, Note 3) tend to occur primarily in low SES schools and is often directed at the lowest achieving students by teachers with low expectations. The significance of this phenomenon is that students attribute this praise to sources outside their

control ("the teacher praises everyone") for outcomes that are not related to achievement ("the teacher praises me for answering whether I'm right or not"). These attributions to uncontrollable sources do not increase expectancy of success or pride, the desired goal of greater effort is not rewarded, and, as in #1 above, attributions of lower ability can result. The attribution of causality of praise received to uncontrollable elements increases and reinforces the student's sense of futility ("nothing I do makes any difference").

Improving Test Taking Skills

Miller (in press) suggests that the strategy for improving test taking skills includes motivational aspects -- using academic team games, "psyching up" for tests, and stressing the connection between school work and society -- and technical test taking skills. An attributional account of the motivating force of this strategy is straightforward.

1. The attributional analysis of the motivating effects of academic team games is discussed in the section above.

2. Teaching students how to "psych up" for a test as an athlete does for a game increases the student's confidence and reduces anxiety. Students are therefore more likely to attribute their performance to their own competence and effort rather than the uncontrollable factors of task

difficulty (the test) or environmental cues (tests are biased, unfair, etc.). The result is greater expectancy of success and increased motivation.

3. Increasing the student's perception of the importance of school for success in life, particularly for low SES students with a high sense of futility, should change the pre-task interest in school work. This should also help change the student's attributions for success in life from uncontrollable ("the system keeps me down") to the controllable element of effort ("my work in school will lead to a good job").

4. Improving the student's technical test taking skills results in increased expectancy of success. The student is more likely to attribute success to skill, a component of the stable controllable element, personal competence. This should also increase the affective response (pride). The combined effect should be greater motivation. Conversely, the student's sense of futility should be reduced as attributions are made to controllable rather than uncontrollable elements.

Confronting Low Achievement

The strategy of confronting low achievement attempts to have the student consider the relation between self-concept and sense of futility. This is an effort to convince the student to take personal responsibility for achievement

outcomes. The strategy is based on realistic counseling that, despite the existence of obstacles to success (system bias), it is the individual student who succeeds or suffers in later life depending in large part on academic performance. The counseling suggests that although this school-success connection may not be ideal or to the student's liking, it is a fact of life. The strategy also includes supportive tutoring and academic help to ensure that the student will improve his/her achievement. However, Miller (in press) notes that this reality-based counseling can have detrimental effects on the student if the program, including the academic support and tutoring, is not effective.

An attributional analysis of this strategy includes the following factors:

1. Changing the student's perception of individual responsibility for success, despite societal inequities, encourages the student to attribute success or failure to effort rather than environmental cues (system bias). This is a direct attempt to change the negative incentive of attributions to system bias ("why should I try? The system prevents me from 'making it' no matter what I do").

2. The supportive counseling and academic help can, if effective, change the student's perception of the degree of system bias, at least in the social system of the school. This would reduce Student Sense of Academic Futility and increase the likelihood of attributions to effort rather

than environmental cues.

Confronting Racism

This strategy is similar to the one above except that the focus is on perceptions of individual responsibility for success despite (or because of) institutional and personal racism. The focus is similar to the Rev. Jesse Jackson's PUSH TO EXCEL Program (EXCEL, 1978). A more detailed description of Jackson's reality-based message to students and an example of implementation of this strategy can be found in Miller (in press). The attributional explanation of this strategy parallels the description presented in the section above.

Discussion and Conclusions

This paper has utilized attribution theory as a framework by which to explain the commonalities of five strategies to improve achievement by reducing the student's sense of futility. The analysis drew on the insights of the literature on internal/external locus of control of reinforcement (the antecedents of the sense of futility variable) and the symbolic interactionist formulations of self, others, and reference groups. Using perspectives from these two sources, we provided a modified attributional model.

With the modified attributional model we attempted to show that the commonality of the five strategies to reduce

futility lies in their motivational effects. Following Bloom (1980), we suggested that motivation is an alterable situation specific learning variable as contrasted with the stable personality construct of needs achievement (Atkinson, 1957). Our basic explanation of the relation between Student Sense of Academic Futility (Brookover et al., 1979), a school specific variable closely related to the Coleman et al. (1966) sense of control and the internal/external locus of control (Rotter, 1966) and other related concepts, and achievement can be summarized thus:

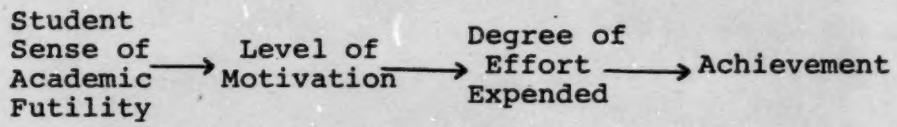

Figure 3. Suggested Relation Between Student Sense of Academic Futility and Achievement.

We realize that numerous other variables influence this sequence. Our interest, however, lies in the specification of the relations between futility, motivation, effort, and achievement. We believe that these relations are mediated by cognitive perceptions and attributions of causal determinants by the individual student. The attributional analyses of Weiner (1972, 1979) did not adequately address this issue of futility. The attributional explanation of the five strategies to reduce futility offered in this paper is an attempt to resolve that issue. The diagram does not address the problem of response feedback for further tasks.

Changing Motivational Levels

The possibility of changing motivational levels is not a new idea. However, most of the work in this area has focused on programs designed to enhance an individual's level of needs achievement. This research has been predicated upon the assumption that needs achievement is a stable personality factor. McClelland and Winter (1969) attempted to increase needs achievement in the area of economic success by teaching self-responsibility, goal-setting, and record-keeping. Their basic approach stressed the value of effort in achievement. Likewise, de Charms (1972) instituted origin training in an effort to increase school achievement. This research showed that it is possible to change a person's origin-pawn orientation and that changes in increased origin status were associated with increased achievement.

Our position is somewhat different. The five strategies for reducing futility are all school-specific methods of increasing achievement. None of the five strategies is new. Each has been used independently by teachers, researchers, and counselors. Our orientation, however, is on the motivational relation between futility and effort. Furthermore, we consider motivation not as a stable personality trait but as an alterable factor depending on the interest and importance of the task behavior to the individual. Thus we see the five strategies as an overall program to reduce the level of futility, enhance motivation and

effort, and increase achievement.

The five strategies are different from previous achievement training programs in one other respect. Previous programs have been oriented to the individual. While we recognize the importance of the individual's own personal characteristics and responses, the focus of change in this approach is on the learning climate of the school (Brookover et al., 1979; Tornatzky et al., in press). Group norms and accepted behavior are defined by the members of the social system. Each school has its own set of local norms. The level of student futility in a building is an important aspect of the learning climate. While the group norms are carried by and established by the individuals in the school, the collective norms exert a powerful influence on those individuals. Thus we suggest that individual change will be facilitated by efforts to change the learning climate. By the same token, we are aware that changes in the level of futility of the students will be reflected in changes in the school learning climate.

The attributional analysis of the five strategies that we have detailed supplies an explanation of the mechanisms by which the individual gives meaning to the cues received from the environment and of the mediating cognitive interpretations that result in task-oriented behavior. But those cues come primarily from interaction with members of the social system, including teachers and peers. Hence we do not feel that the individual level explanation of

motivation is inconsistent with our emphasis on changing the school learning climate. Rather, we suggest that an understanding of the problem of achievement and motivation requires analysis at the level of the social system and at the individual level.

Implications for Further Research

The analysis of motivation in terms of attribution theory suggests several directions for further research. First, do the suggested strategies result in increased achievement when used together? The observational nature of the current research project precludes a strict empirical test of that question. Second, does the attributional model suggested here explain other educational practices designed to raise achievement? Third, does the attributional model presented here stand up to empirical investigations of the attributions that students make? Fourth, is the revised model adequate to explain previous investigations of motivation?

These questions and others must be answered if we are to advance our knowledge of the factors that influence student feelings of futility and motivational levels. The evidence exists that some low SES/minority schools have high achievement. We are hopeful that further research in this area will contribute to the goal of high achievement for all schools.

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